

Title (en)
FILM FOR MILLIMETER-WAVE ANTENNA

Title (de)
FOLIE FÜR MILLIMETERWELLENANTENNE

Title (fr)
FILM POUR ANTENNE À ONDES MILLIMÉTRIQUES

Publication
EP 3608356 A1 20200212 (EN)

Application
EP 18781239 A 20180406

Priority
• JP 2017075675 A 20170406
• JP 2018010675 A 20180125
• JP 2018014710 W 20180406

Abstract (en)
Provided is a porous low-dielectric polymer film which has a low dielectric constant at high millimeter-wave frequencies to fulfill utility as a sheet for a millimeter-wave antenna, and provides excellent circuit board processability. The porous low-dielectric polymer film is made of a polymer material and formed with fine pores dispersed therein, wherein the film has a porosity of 60% or more, and the pores have an average pore diameter of 50 µm or less, and wherein a porous structure of the film is a closed-cell structure.

IPC 8 full level
C08J 9/28 (2006.01); **H05K 1/03** (2006.01)

CPC (source: EP KR US)
B32B 7/12 (2013.01 - KR US); **B32B 15/08** (2013.01 - US); **B32B 15/20** (2013.01 - US); **B32B 27/06** (2013.01 - KR); **B32B 27/281** (2013.01 - US); **C08J 9/26** (2013.01 - KR); **C08J 9/286** (2013.01 - EP US); **H01B 5/14** (2013.01 - KR); **H01Q 1/2291** (2013.01 - KR); **H05K 1/03** (2013.01 - EP); **B32B 2250/03** (2013.01 - US); **B32B 2250/40** (2013.01 - US); **B32B 2307/202** (2013.01 - US); **B32B 2307/204** (2013.01 - US); **B32B 2457/00** (2013.01 - US); **C08J 2201/0522** (2013.01 - EP US); **C08J 2205/044** (2013.01 - EP US); **C08J 2205/052** (2013.01 - EP US); **C08J 2369/00** (2013.01 - EP KR); **C08J 2379/08** (2013.01 - EP KR US); **H01Q 1/2283** (2013.01 - US); **Y02P 20/54** (2015.11 - EP)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3608356 A1 20200212; **EP 3608356 A4 20210113**; CN 110475814 A 20191119; CN 110475814 B 20220913; JP 2019123851 A 20190725; JP 2019199616 A 20191121; JP 2021152166 A 20210930; JP 6567722 B2 20190828; JP 7206323 B2 20230117; KR 102336756 B1 20211207; KR 20190126897 A 20191112; TW 201842020 A 20181201; TW I775830 B 20220901; US 2020032026 A1 20200130; WO 2018186486 A1 20181011

DOCDB simple family (application)
EP 18781239 A 20180406; CN 201880023445 A 20180406; JP 2018014710 W 20180406; JP 2018073641 A 20180406; JP 2019140884 A 20190731; JP 2021090949 A 20210531; KR 20197030631 A 20180406; TW 107112098 A 20180409; US 201816500882 A 20180406